The density (at 15°·56 C.) of the sea-water which comes in contact with the lower surfaces of the icebergs is 1·0255, which represents a chlorine percentage of 1·90. Ice actually *melting* in this water would produce a temperature of – 1°·92 C. When ice is *immersed* in this water it lowers its temperature, and a portion of the ice is melted, producing dilution. The concentration, therefore, or chlorine percentage, which will determine the melting temperature of the ice, will be a little lower than that of the original sea-water. From the *Challenger* observations we see that, on the confines of the pack-ice the cold stratum of water has a uniform temperature of 29° F. (– 1°·67 C.). Ice melts at this temperature in sea-water containing 1·65 per cent. of chlorine. In this process ice is melted, so that 100 grammes pure warm sea-water become 119 grammes of diluted cold sea-water. It will be observed that the ice which has been formed in the atmosphere at a temperature of 32° F. comes in this way to be melted at a temperature of 29° F.; and the pressure exerted by the 300 fathoms of sea-water, though it may assist in the lowering of the melting temperature, is insufficient to account for the amount.

TO FIND THE DAY OF THE WEEK FOR ANY GIVEN DATE

HAVING hit upon the following method of mentally computing the day of the week for any given date, I send it you in the hope that it may interest some of your readers. I am not a rapid computer myself, and as I find my average time for doing any such question is about 20 seconds, I have little doubt that a rapid computer would not need 15.

Take the given date in 4 portions, viz. the number of centuries, the number of years over, the month, the day of the month.

Compute the following 4 items, adding each, when found, to the total of the previous items. When an item or total exceeds 7, divide by 7, and keep the remainder only.

The Century-Item.—For Old Style (which ended September 2, 1752) subtract from 18. For New Style (which began September 14) divide by 4, take overplus from 3, multiply remainder by 2.

The Year-Item.—Add together the number of dozens, the overplus, and the number of 4's in the overplus.

The Month-Item.—If it begins or ends with a vowel, subtract the number, denoting its place in the year, from 10. This, plus its number of days, gives the item for the following month. The item for January is "0"; for February or March (the 3rd month), "3"; for December (the 12th month), "12."

The Day-Item is the day of the month.

The total, thus reached, must be corrected, by deducting "1" (first adding 7, if the total be "0"), if the date be January or February in a Leap Year: remembering that every year, divisible by 4, is a Leap Year, excepting only the century-years, in New Style, when the number of centuries is *not* so divisible (*e.g.* 1800).

The final result gives the day of the week, "0" meaning Sunday, "1" Monday, and so on.

EXAMPLES

1783, *September* 18

17, divided by 4, leaves "1" over; 1 from 3 gives "2"; twice 2 is "4."

83 is 6 dozen and 11, giving 17; plus 2 gives 19, *i.e.* (dividing by 7) "5." Total 9, *i.e.* "2."

The item for August is "8 from 10," *i.e.* "2"; so, for September, it is "2 plus 3," *i.e.* "5." Total 7, *i.e.* "0," which goes out.

18 gives "4." Answer, "*Thursday.*"

1676, *February* 23

16 from 18 gives "2."

76 is 6 dozen and 4, giving 10; plus 1 gives 11, *i.e.* "4." Total "6."

The item for February is "3." Total 9, *i.e.* "2."

23 gives "2." Total "4."

Correction for Leap Year gives "3." Answer, "*Wednesday.*"

LEWIS CARROLL

NOTES

IN the Report submitted yesterday at Edinburgh to the half-yearly general meeting of the Scottish Meteorological Society, the Council state that the work at the Ben Nevis Observatory continues to be carried on by Mr. Omond and the assistants in the same highly satisfactory manner as has been recorded in previous Reports. In addition to the laborious work of observing at all hours of the day and night, of reducing the observations, and forwarding copies for the Society and the Meteorological Council, the staff of the Observatory has given very effective assistance in the preparation of the tables of the meteorology of Ben Nevis now in the press. Several interesting researches are being conducted at the Observatory, the results of which will be communicated to a future meeting. The Directors took steps last autumn to raise subscriptions to clear off the debt on the institution, and to establish a low-level station at Fort William, at which hourly observations may be made for comparison with those at the Observatory. It is only by two sets of observations at the top and bottom of the mountain that the Ben Nevis Observatory can be utilised, with the desired success, in the furtherance of meteorological science, but particularly in that branch of it which concerns the improvement of the system of forecasting the weather of the British Islands.

ON Tuesday evening last the Lord Advocate stated in the House of Commons that the Scottish Universities Bill would shortly be introduced.

THE Paris Medical Faculty has decided to alter considerably the mode of competition for its Fellowships. The general object of the changes is to secure more original workers. The thesis (which has usually been the work, not of the candidate himself, but of his friends) is to be suppressed. Each candidate will henceforth have to deliver a lecture on his own scientific researches.

THE French Chamber of Deputies has decided that the buildings of the College of France shall be considerably enlarged. Fifty years ago, when this institution had only seventeen professors, its present buildings were sufficient; but now, when it has forty-one professors, they are very inadequate. It is to have four new lecture-rooms, a geological gallery, a set of rooms for other collections, a library, a meeting-room for professors, and eight laboratories. These additions will cost over 9,000,000 francs.

THE Anatomical Society, founded last September at Berlin, will hold its first general meeting at Leipzig on April 14. The Society has now over 170 members in England, Germany, Austria, Hungary, Switzerland, Holland, Belgium, Scandinavia, France, Russia, Italy, and North America.

DR. HANS REUCH, who has lately devoted much time to the study of earthquakes in Norway, has issued a tabulated circular, which has been reproduced in the entire Norwegian Press, requesting that reports of any phenomena observed in connexion with earthquakes may be sent to him. By Government permission all such reports may be transmitted through the post free of charge. Dr. Reuch asks especially for information on the following points: exact time of occurrence of the earthquake; the time compared with that of the nearest railway or telegraph station; locality of occurrence, and whether felt indoors or in the open; nature of soil; what the observer was occupied with; how many shocks were felt; nature of motion, undulating or oscillating; from what direction the shock came; whither it went; how long the motion lasted; what were its effects; did the shock resemble others experienced by the observer; was there any sound; was the sound heard before or after the earthquake; what was the interval between the shocks; were phenomena of restlessness in animals, or peculiarities of the weather, observed; if near sea or lake, were there any strange motions in the same; the names of any other persons who are known to have noticed the earthquake. Earthquake phenomena having been more than usually frequent in Norway during the past year, it is believed that Dr. Reuch's circular may be of considerable service to science.

AT a meeting of the Japanese members of the Seismological Society of Japan held at the Imperial University on January 20 (according to a report in the *Japan Weekly Mail*) two papers were read in Japanese. The first was by Mr. Kikuchi, on the geology of Corea. In it the writer described the geological map made by Prof. Gottsche, who visited that country after leaving Japan. The paper also gave a description of the geological formations and the minerals found in the different provinces of Corea, and showed that Corea differs from Japan in the fact that these formations in the former country are much older, and on that account more stable, than those in the latter. This, Mr. Kikuchi thought, might account for the comparative absence of seismological phenomena in Corea. The second paper, by Mr. S. Sekiya, was on recent destructive earthquakes. The writer described in succession the causes and effects of the earthquake which occurred in Japan on February 22, 1880; the earthquake at Ischia in 1883; the shock of October 15, 1884, in Japan; the earthquakes in Spain in 1884; those of the United States of last year; and the shock of January 15 in Japan. It was pointed out that the three earthquakes mentioned as occurring in Japan were very similar in their intensity, and that they extended over nearly the same area; but, with regard to their place of origin, the writer said the first two shocks originated in Tokio Bay, or in the ocean beyond the peninsula, while that of the present year originated in a spot to the south-west of the two previously mentioned. A third paper on the meteorology of Tokio was postponed. It appears from this and other reports which we have published from time to time that the Japanese Section of the Seismological Society, where the papers are read in the Japanese language, is, like the parent Society, in a very flourishing condition. It evidently supplies a demand for this department of science amongst Japanese who know no language well except their own.

AT the first meeting of the London Commission for the Melbourne Centennial International Exhibition, held on Thursday, the 24th inst., the chairman, Sir Graham Berry, said that the proposed buildings of the Exhibition would cover an area of more than 1,000,000 feet. It was decided that a deputation should ask Sir Henry Holland to take steps for the appointment, in connexion with the Exhibition, of a Royal Commission for the United Kingdom, and that the Foreign Office should be requested to communicate on the subject of the Exhibition with foreign Powers, India, and colonies other than Australasia.

ON Saturday evening last, a lecture on "The Habits of Ants" was delivered by Sir John Lubbock in the theatre of the Working Men's College, Great Ormond Street. The lecturer gave an interesting account of some of the results of his own observations, and brought forward much evidence to prove that ants possess "something more than mere instinct."

BY an Order in Council, dated March 7, Her Majesty has declared that the following antiquities shall be protected by the Ancient Monuments Act: (1) Little Kit's Coty House, or the countless stones of Tottington, at Aylesford, in Kent; (2) the chambered tumulus at Buckholt, in Gloucestershire; (3) the Druid's circle and tumulus on Eyam-moor, in Derbyshire; (4) the Pictish tower of Carloway, in Ross-shire; (5) the Ruthwell Runic cross in Dumfriesshire; and (6) St. Ninian's Cave, at Glasserton, in Wigtownshire. The Order will not come into force until it has lain for forty days before both Houses of Parliament.

IN the so-called Seelberg, where in 1816 the mammoth group which is the chief ornament of the Stuttgart Museum was found, further excavations are being made under the direction of Dr. Fraas. Many skeletons, weapons, and implements have been discovered, and Dr. Fraas is of opinion that the mammoth group found seventy years ago was artificially put together by prehistoric artists.

IN the *American Naturalist* there is an article by Mr. John Murdoch on what he calls "some popular errors in regard to the Eskimos." One of these "popular errors" is the notion that the Eskimos pass the winter "in a sort of hibernation, in underground dens, living in enforced idleness and supporting life by stores of meat laid up in less inclement seasons." Mr. Murdoch, who spent two winters at Point Barrow, says this is a wholly mistaken impression. In spite of the extreme inclemency of the climate, the winter, he asserts, is passed by the Eskimos "in one continued round of activity," and he gives a very interesting description of the manner in which they occupy themselves. Another "popular error" on this subject is the idea that the Eskimos always eat their food raw, and devour enormous quantities of blubber. At Point Barrow, Mr. Murdoch found that food was habitually cooked, although certain articles, like the "black skin" of the whale, were usually eaten raw. Taking into account the fact that the Eskimos have no butter, cream, fat, bacon, olive-oil, or lard, he doubts whether much more fat is consumed by them than by civilised peoples. At Point Barrow the fat of birds and the reindeer was freely partaken of, but comparatively little actual blubber either of the seal or whale was eaten. "Seal or whale blubber was too valuable,—for burning in the lamps, oiling leather, and many other purposes, especially for trade."

A BOOK on "Sensation and Movement," by M. Ch. Féré, of Paris, has just been published. The author tries to show how different sorts of sensations react upon the vasomotor and motor phenomena, as indicated by pletysphygmograph and dynamometer.

IN a work on "The Nationalities of Bohemia," lately published, Dr. L. Schlesinger shows that 37·11 per cent. of the population of that country are Germans, and 62·83 are Czechs The limits within which the languages of the two races are spoken are generally very sharply drawn. There are 13,184 inhabited places in Bohemia, and in 4304 of them German alone is spoken, in 8473 the Czech language alone. In only 407 places are both languages used.

THE death is announced of Prof. Simon Spitzer, Professor of Analytical Mechanics at the Technical High School of Vienna, the author of various well-known mathematical works. He died on March 16 at the age of sixty-one.

THE new University building at Upsala is approaching completion. It has been in course of erection since 1879, and will be one of the finest University buildings in Europe. It will be opened with great ceremony on May 18 next by the King of Sweden, in presence of delegates from the principal foreign Universities.

LAST week the American Government forwarded another consignment of whitefish ova to the National Fish-Culture Association. These have been taken from late spawners, and appear more healthy than the batch sent in January. The ova are well "eyed," and in some cases are on the point of incubation. A consignment of the Californian trout ova, viz. the Rainbow (*S. irideus*), has likewise been received by the Association from the American Government. This variety is likely to become highly popular in England on account of its unique colour and form and its capacity of gaining flesh rapidly.

WHEN the South Kensington Aquarium was closed, the sea-trout which had been maintained there were transferred to ponds in the Delaford Park Fishery; and in February last many ova were taken from them and crossed with the *S. fario*, as in previous years. There are now a large number of hybridised examples of *S. trutta* in the ponds produced from ova shed in the South Kensington Aquarium and crossed in a similar manner. The two-year-old specimens are now about 7 inches long, their size being much smaller than that of other trout of the same age. None of the fish have spawned.

THE meaning of the word "scientist" seems to be rather vague in the country in which it originated. In his annual address as President of the Philosophical Society of Washington, lately published, Mr. John S. Billings says the word was a coinage of the newspaper reporter, and, "as ordinarily used, is very comprehensive." Webster defines a scientist as "one learned in science, a *savant*." Mr. Billings, however, thinks that the suggestion conveyed by the word "is rather that of one whom the public suppose to be a wise man, whether he is so or not; of one who claims to be scientific." In his address, the subject of which is "Scientific Men and their Duties," he himself uses the term "in the broadest sense, as including scientific men, whether they claim to be such or not, and those who claim to be scientific men, whether they are so or not."

PROF. SARGENT, Director of the Arnold Arboretum of Harvard College, estimates that five foreign trees are planted in New England to one native. Yet, of all foreign trees introduced into America, the willow alone, he thinks, has qualities not possessed in a greater degree by some native. The European oak is perhaps the most unsatisfactory deciduous tree that has been experimented upon: it grows rapidly when young, but fails, when about twenty years old, from the cracking of the main stem, and then, after dragging out a wretched existence a few years longer, it miserably perishes. The Scotch pine dies long before reaching maturity, and the Austrian and the Corsican pine seem to be no better. The Norway spruce, which has been for many years the most widely cultivated foreign tree in Massachusetts, becomes decrepit and unsightly just at that period of life when trees should become really handsome in full development.

THE Sonnblick Observatory, in the province of Salzburg, Austria, is the highest in Europe, being 10,177 feet above the level of the sea. It was established chiefly through the exertions of M. Rojacher, proprietor of the mines in that district, in conjunction with the German and Austrian Alpine Club, and the Austrian Meteorological Society. Telephonic communication was established with Rauris, a distance of 15½ miles, and observations were commenced in September 1886. Observations at such elevated stations offer much that is of interest to science generally, and more especially as regards those problems of meteorology which relate to the variations of pressure, temperature, and humidity in the upper regions of the atmosphere. In the *Meteorologische Zeitschrift* for February last, Dr. Hann gives an interesting account of the first three months' observations. The mean temperature in October was 25°·9 F.; in November 15°·3, and in December 8°·1. In October, the decrease of temperature with height during the barometrical minima was, generally, rapid. But during the barometrical maxima it was very slow in the lower strata, up to about 5900 feet; then an increase of temperature with height frequently occurred. The periods of high pressure were generally warm intervals on the Sonnblick, and the periods of low pressure were cold intervals. It is noteworthy, however, that the change of temperature with height, in the strata between about 5900 feet and the summit, was almost independent of the conditions of weather, being nearly constant during the whole month, and amounting to about 1°·3 F. per 328 feet (100 metres); while in the lower regions, from about 1300 feet to 5900 feet, it varied between 0° and 1°·1. And, generally speaking, the same rates of decrease of temperature obtained in November and December. During the period of high pressure, on October 1 to 5, which was the warmest part of the month, the march of relative humidity showed a great contrast at the high stations and at the valley stations, humidity being greatest at noon at the high stations, and lowest in the valleys. As regards wind, it may be remarked that early in November the anemometer became a shapeless mass of hoar frost. It remains to be shown what use can be made of the observations on such elevated stations for the practical work of weather-forecasting. The observers of the Pic du Midi claim to have foretold, from the conditions at that Observatory, the disastrous floods that occurred in the South of France at the end of June 1875, and thereby to have rendered important services by their timely warning.

THE Norwegian Government has taken another step towards discovering the origin and nature of the terrible disease leprosy, which is so common on the west coast of Norway, by despatching Dr. G. A. Hansen, Director of the Leprosy Hospital at Bergen, to North America, for the purpose of inquiring into the heredity of the disease among Scandinavian emigrants to the United States.

SOME interesting statistics concerning the libraries of the United States have been printed in America from advance sheets of the forthcoming Report of the Bureau of Education. There are in the United States 5338 libraries, each with 300 volumes or over. Of these, 2981 have each 1000 volumes or over. Forty-seven have each over 50,000 volumes; and among the forty-seven are the public libraries of Boston, Chicago, and Cincinnati, and the libraries of Harvard, Columbia, Yale, Cornell, and Brown Universities. These forty-seven libraries aggregate 5,026,472 volumes; and the whole list of 5338 libraries aggregates 20,622,076 volumes, or one volume to every three persons in the country. In round numbers the United States has one library to every 10,000 of population, though in many States the proportion is far greater. New Hampshire, for example, has a library to every 2700 persons. Massachusetts and Connecticut furnish a library to every 3134 and 3479 persons respectively. California, Colorado, Wyoming, and Michigan, are well up on the list. Arkansas, which stands lowest, has one library to every 50,158 of population.

SOME time ago we reviewed a little book entitled "A Year with the Birds," by an Oxford Tutor. A second edition has now been issued. The author has added a chapter on the Alpine birds, and has also made a considerable number of additions and corrections in the original chapters.

THE annual general meeting of the Linnean Society of New South Wales took place on January 26. The usual address was delivered by the President, Prof. W. J. Stephens, who presented a general summary of all the scientific work included in the year's Transactions. He also drew attention to the labours of other scientific Societies of Australasia during the preceding year, and concluded with some observations on scientific teaching in general schools.

THE additions to the Zoological Society's Gardens during the past week include a Malayan Bear (*Ursus malayanus*) from Malacca, presented by Mrs. Bingham; a Common Squirrel (*Sciurus vulgaris*), British, presented by Mr. H. B. Meadows; two Tree Pipits (*Anthus arboreus*), British, presented by Mr. W. B. Tegetmeier; two Dwarf Chameleons (*Chamæleon pumilus*), two Robben Island Snakes (*Coronella phocarum*), a —— Toad (*Bufo augusticeps*) from South Africa, presented by the Rev. G. H. R. Fisk; two Pondicherry Vultures (*Vultur calvus*) from India, two Ocellated Sand Skinks (*Seps ocellatus*), South European, purchased; two Black Lemurs (*Lemur macao*), a White-fronted Lemur (*Lemur albifrons*), born in the Gardens.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1887 APRIL 3-9

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on April 3

Sun rises, 5h. 33m.; souths, 12h. 3m. 22·6s.; sets, 18h. 34m.; decl. on meridian, 5° 18′ N.: Sidereal Time at Sunset, 7h. 21m.

Moon (Full on April 8) rises, 12h. 29m.; souths, 20h. 12m.; sets, 3h. 44m.*; decl. on meridian, 15° 47′ N.

Planet	Rises h. m.	Souths h. m.	Sets h. m.	Decl. on meridian ° ′
Mercury ...	4 57	10 50	16 43	2 13 S.
Venus ...	6 26	13 53	21 20	15 46 N.
Mars ...	5 44	12 22	19 0	6 44 N.
Jupiter ...	20 16*	1 22	6 28	11 12 S.
Saturn ...	10 13	18 22	2 31*	22 29 N.

* Indicates that the rising is that of the preceding evening and the setting that of the following morning.

Occultations of Stars by the Moon (visible at Greenwich)

April	Star	Mag.	Disap. h. m.	Reap. h. m.	Corresponding angles from vertex to right for inverted image ° °
7	46 Virginis	6	21 23	22 6	351 275
7	48 Virginis	6	22 59	0 2†	28 271
8	B.A.C. 4647	6	19 57	near approach	302 —
9	94 Virginis	6	1 12	2 22	59 273

† Occurs on the following morning.

April	h.	
3	13	Mercury stationary.
9	3	Jupiter in conjunction with and 3° 20′ south of the Moon.

Saturn, April 3.—Outer major axis of outer ring = 41″·9; outer minor axis of outer ring = 17″·5; southern surface visible.

Variable Stars

Star	R.A. h. m.	Decl. ° ′			h. m.	
S Persei ...	2 14·8	58 4 N.	Apr.	9,		*M*
ζ Geminorum ...	6 57·4	20 44 N.	,,	4,	22 0	*M*
S Cancri ...	8 37·5	19 26 N.	,,	9,	21 57	*m*
V Boötis ...	14 25·2	39 23 N.	,,	9,		*m*
δ Libræ ...	14 54·9	8 4 S.	,,	6,	21 55	*m*
U Coronæ ...	15 13·6	32 4 N.	,,	6,	20 26	*m*
S Coronæ ...	15 16·8	31 47 N.	,,	6,		*M*
S Scorpii ...	16 10·9	22 37 S.	,,	4,		*M*
R Ursæ Minoris ...	16 31·5	72 30 N.	,,	5,		*M*
U Ophiuchi ...	17 10·8	1 20 N.	,,	3,	1 52	*m*
		and at intervals of			20 8	
U Sagittarii ...	18 25·2	19 12 S.	Apr.	5,	3 0	*m*
			,,	8,	2 0	*M*
R Scuti ...	18 41·5	5 50 S.	,,	8,		*m*
β Lyræ ...	18 45·9	33 14 N.	,,	3,	21 0	*m*
			,,	7,	2 0	*M*
η Aquilæ ...	19 46·7	0 43 N.	,,	6,	22 0	*m*
R Sagittæ ...	20 8·9	16 23 N.	,,	8,		*M*
δ Cephei ...	22 25·0	57 50 N.	,,	4,	2 0	*m*
			,,	7,	20 0	*M*

M signifies maximum; *m* minimum.

GEOGRAPHICAL NOTES

THE new number of the *Mittheilungen* of the Vienna Geographical Society contains several letters written by Dr. O. Lenz during his journey from Kasonge, on the Upper Congo, and the Shiré River, to the south of Lake Nyassa (June to December 1886). These letters are, to a large extent, occupied with details of the troubles which Dr. Lenz had with his men. Kasonge is a most unhealthy town. Bohndorf, Lenz's companion, was struck down with fever, and had to be carried most of the way, while small-pox broke out among his men, seriously hampering the proper work of the Expedition. Lenz left Kasonge on June 30, and reached the Island of Kavala, off the west shore of Lake Tanganyika, the head-quarters of Capt. Hore, on August 7. On the route he passed many villages recently built by Zanzibaris, the native population having retired into the forests and mountains. The region is mainly an open table-land, sometimes of a beautiful park-like aspect, and with the river-valleys thickly wooded. As Tanganyika was approached, the plateau rose to a height of 3000 to 4000 feet, with mountains rising from its surface to an equal height. The chief rock was granite, with crystalline slates, and wooded spurs. After staying a few days with Mr. Hore, Dr. Lenz crossed to Ujiji, which he reached on August 15. Here he found himself compelled to give up his proposed journey to Emin Pasha, and in a large boat he and his men sailed down the lake to the south shore, which he reached on September 27. Mr. Hore informed him that the Lukuga River now flows with a strong current out of Lake Tanganyika to the Lualaba. Mr. Hore, who has known the lake for ten years, assured Dr. Lenz that during that time its level has fallen 15 feet, and as the latter sailed down the lake he saw clearly enough the marks of the old shore-lines. With difficulty Dr. Lenz obtained assistance on the inhospitable south shore to continue his journey onwards to Lake Nyassa. This route has been traversed several times, and Dr. Lenz does not in these letters add much to our knowledge. It is a plateau with mountains rising from it to a considerable height, and to the south-west of Lake Tanganyika he came upon the sources of the Chambeze, which, flowing into Lake Bangweolo, may be said to form the remotest sources of the Congo. On October 17 he reached Nkonde, on Lake Nyassa, a station of the African Lakes Company, and thence made his way down the lake and on to the River Shiré, whence his last letter is dated, in December 1886.

IN the same number will be found the conclusion of Herr Glaser's paper on his journeys in South Arabia, in which he gives some important information on the various classes of the population. He speaks in the worst possible terms of the climate of the region: highland and lowland are equally bad, and deadly for Europeans.

THE leading paper in the last number of the *Verhandlungen* of the Berlin Geographical Society is Dr. Wolf's account of his important exploring work on the Sankuru, the great southern tributary of the Congo. This he navigated upwards from the Kasai, exploring its three great sources, the Lomomi, the Lussambo, and the Lubi. It is on the whole a magnificent water-way, its banks in many parts thickly wooded and densely populated. He gives much information concerning the two leading peoples here, the Bakutu and the Baluba, both of them evidently intruders on the Batua, the pygmy people referred to in our last number, the former coming from the north-west and the latter from the south-east. Herr Städinger adds considerably to our knowledge of the Niger region in his narrative of his journey from Loko, on the Binué, to the kingdoms of Saria, Kano, Sanfarra, Sokoto, and Gando.

HERR FERDINAND SEELAND contributed to a recent meeting of the Austro-German Alpine Club some useful data on the rate of movement of the Pasterz Glacier. On October 3 last he found the glacier entirely free from snow, and he was lucky enough to find six pegs which he inserted in 1882 near the Hofmann Hut straight across the glacier to the base of the Glockner, and also two stones which he laid down in 1884. In the four years 1882–86 the first peg had moved downwards 121·5 m. (*i.e.* at the rate of 3·5 mm. per hour), the second 162 m. (4·6 mm.), the third 175·5 m. (5 mm.), the fourth 192·3 m. (5·5 mm.), the fifth 201·5 m. (5·8 mm.), and the sixth 198·6 m. (5·7 mm.). Of the stones, in the two years one had moved 104·2 m. (5·9 mm.), the other 100·7 m. (5·8 mm.). According to these results (in the direction from the north edge of the glacier towards the centre), the mean rate of